FATTAH
Neuroscience Initiative

What is the Fattah Neuroscience Initiative?

The Fattah Neuroscience Initiative (FNI) is an innovative, non-incremental policy initiative designed to make major progress in understanding the human brain by intensifying, in a collaborative fashion, federal research efforts across brain disease, disorder, injury, cognition, and development. The initiative aims to coordinate research across agencies and draw upon public-private partnerships and the world of academia. The initiative promotes research and discovery across brain cognition, development, disease, and injury.

Why concentrate on neuroscience?

Although our brains control all that we do, think, and comprehend, we have only a burgeoning understanding of this enigmatic organ. In many ways the brain represents the final frontier of scientific research. In the natural human quest for discovery and knowledge, we have the potential to benefit greatly from an inward look into the very organ we use to ask questions and draw conclusions.

Why is Congressman Fattah focused on this work?

Congressman Fattah is the lead Democrat on the Commerce, Justice, and Science Appropriations Subcommittee. In this role he is responsible for overseeing federal expenditures in the science agencies, specifically the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), the National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA). The Congressman has a longstanding interest in science and federal support for research and has chosen to focus on neuroscience in his current leadership role. The FNI will incorporate the work of these agencies, as well as agencies under different jurisdictions.

What does the FNI hope accomplish?

The FNI intends to significantly increase federal investment in neuroscience research, including fully funding recommendations made by the Interagency Working Group on Neuroscience (IWGN). The FNI will also bring together pharmaceutical companies, privately-funded research organizations, academics, and advocates to form public-private partnerships that amplify federal investments and accelerate the pace of research. Fundamentally the FNI seeks to advance efforts to deal with degenerative disease, cure mental illness, repair the injured brain and maximize cognitive function.

Why is the FNI important?

Every American family has been touched by neuroscience in some way, whether through concerns about child development, degenerative diseases afflicting older relatives, a traumatic brain injury (TBI) striking a family member or an interest in improving memory. In addition to implications for individual families, these diseases and disorders have significant national reach: over 50,000 veterans returning from the recent wars in Iraq and Afghanistan are suspected of suffering from TBI and more than 150,000 have been diagnosed with PTSD.

Alzheimer's disease, stroke, epilepsy, traumatic brain injury, Parkinson's disease, multiple sclerosis, and amyotrophic lateral sclerosis (ALS) afflict more than 11 million Americans, and over seven million Americans, many of whom are currently school children, have autism, developmental delays, or learning disabilities. Research in any of these areas has the opportunity to dramatically improve quality of life and human potential for millions of America.

Why is the FNI tackling these issues now?

We stand at a tipping point, on the cusp of significant, life-changing discoveries. Incredible progress has been made in the area of neuroscience over the last ten years and strategic collaboration and investment will allow real progress to attack problems which have long been unresolved.

What has the FNI achieved to date?

Congressman Fattah has successfully secured millions of dollars in increased neuroscience funding for the National Science Foundation in addition to setting the precedent for continued growth by incorporating neuroscience language in every Congressional spending bill since 2011.

An amendment championed by Congressman Fattah passed in 2011, directing the White House Office of Science and Technology Policy (OSTP) to establish an Interagency Working Group on Neuroscience (IWGN). The IWGN was chartered on June 20, 2012 to coordinate neuroscience research activities across the federal government; the group is led by NSF and NIH, and includes nearly 40 representatives from more than 20 agencies, departments, and institutes. In 2014, the IWGN released a final report with recommendations about the future of neuroscience and ways that the government can accelerate progress in brain research.

Additionally, the Fattah Neuroscience Initiative helped initiate a formal collaboration between the federal government and the pharmaceutical industry to boost private sector investment in brain research. Most recently, legislation has directed OSTP to identify new opportunities for international neuroscience collaboration, and has recommended specific advances in medical imaging research and the creation of a National Brain Observatory.

The following departments and agencies are represented on the IWGN: Department of Agriculture; Department of Defense; Department of Education; Department of Energy; Department of Health and Human Services (Co-chair); Department of Homeland Security; Department of Justice; Department of Veterans Affairs; Central Intelligence Agency; Environmental Protection Agency; National Aeronautics and Space Administration; National Science Foundation (Co-chair); and the Office of the Director of National Intelligence.

This collaborative is significant both in its interdisciplinary nature and the precedence it stands to set in addressing broad national priorities.

Congressman Fattah is also partnering with the American Association for the Advancement of Science (AAAS) to host a series of congressional briefings educating Members of Congress and their staff about current neuroscience research. Topics presented thus far have included infant brain development and mental illness in young adults.

CONGRESSMAN CHAKA FATTAH

Congressman Chaka Fattah is currently serving his 11th term in the U. S. House of Representatives representing Pennsylvania's 2nd Congressional District. He is a senior member of the House Appropriations Committee, the committee responsible for setting spending priorities of over $1 trillion in annual discretionary funds for the U.S. government.

Congressman Fattah has been a lifelong advocate for children and working families, and to date more than 25 million individuals have benefitted from Fattah programs and initiatives, including GEAR UP, the American Opportunity Tax Credit, youth mentoring, and STEM education programs. Fattah is a Co-Chair of the Congressional Urban Caucus, the Congressional Task Force on Alzheimer's Disease, and the House Science and National Labs Caucus. He also serves as a Vice Chair of the House Gun Violence Prevention Task Force.

As Ranking Member on the Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies (CJS), Congressman Fattah is the lead Democrat responsible for the funding of some of largest science agencies in the federal system, including NASA, the National Science Foundation, and the Office of Science and Technology Policy (OSTP). In this role, Fattah has elevated neuroscience to a national priority.

In 2011 Fattah created the *Fattah Neuroscience Initiative* and through his leadership on the Appropriations Committee, directed the OSTP to establish an Interagency Working Group on Neuroscience (IWGN). Housed at the White House and chartered on June 20, 2012, the IWGN currently convenes representatives across the Federal government—from NSF to Department of Agriculture and the CIA—to make recommendations about the future of neuroscience research. The *Initiative* has also created a formal collaboration with the pharmaceutical community to substantially increase private sector investment in brain research; has directed OSTP to identify new opportunities for international neuroscience collaboration opportunities; and has recommended specific advances in medical imaging and the creation of a National Brain Observatory.

The *Fattah Neuroscience Initiative* is credited as an impetus for the White House BRAIN initiative and the Congressman has been recognized by President Obama for his leadership on the issues of brain research.

Congressman Fattah is currently working closely with leaders in the European Union (EU) and Israel to foster increased international cooperation efforts around neuroscience investment.

WHAT PEOPLE ARE SAYING ABOUT THE
Fattah Neuroscience Initiative

"Thank you to Chaka Fattah for not just the great introduction, but more importantly, **your leadership, especially on the issues of brain research that have the potential to change so many lives.**"

U.S. President Barack Obama

"The Administration has had a longstanding interest in neuroscience….**Such efforts would be difficult indeed without the strong support of leaders like Rep. Fattah, who worked closely with OSTP in 2011 to establish the Interagency Working Group on Neuroscience,** which coordinates research among more than a dozen agencies under the National Science and Technology Council."

Dr. Philip Rubin
Principal Assistant Director for Science the White House Office of Science and Technology Policy (OSTP)

"Congressman Fattah is unquestionably one of the best friends of science ever. He gets it. He runs around the country talking about science…and he absolutely loves neuroscience. And the secret truth, which I don't think is so secret is, **he really is the initiator of what ultimately turned into the B.R.A.I.N Initiative that President Obama announced a couple of weeks ago in the East Room."**

Dr. Alan Leshner
CEO, American Association for the Advancement of Science (AAAS)

"They [the scientists] are the astronauts for this new race to inner space. So, if they're the astronauts, **Chaka Fattah is at mission control…because of his leadership, we are beginning to bring together the science of neuroscience.** Chaka Fattah is about the political science of neuroscience—in other words, how do we bring all of this science together."

Patrick Kennedy
Former Congressman and co-founder of One Mind for Research

"I want to **thank you for all that you're doing in the Congress and elsewhere in order to boost up the relations between the EU and the United States in** research and innovation in many fields, and in particular in the field of **neuroscience**."

Maria Cristina Russo
Director, International Cooperation, DG Research and Innovation, European Commission

PRESS CLIPS

The Philadelphia Inquirer

Fattah draws attention to neuroscience funding

By Stacey Burling, Inquirer Staff Writer
Posted: November 19, 2011

Rep. Chaka Fattah said he got bipartisan support. (ED HILLE / Staff)

In what he hopes will be a step toward increasing funding for research into brain disorders, U.S. Rep. Chaka Fattah (D., Pa.) said this week that he had helped win bipartisan support for a more coordinated approach to federal funding of neuroscience.

"I see this as an area where the country can make real progress over the next decade and I believe that it deserves the kind of attention that will be caused by this collaboration," Fattah said Friday. He said the European Union had also made neuroscience research a priority.

Neuroscience is a diverse and fragmented field that includes pediatric brain development, stroke, traumatic brain injury, and Alzheimer's disease. Just delaying the onset of Alzheimer's as the nation's population is increasingly elderly could save "trillions," Fattah said.

Fattah, whose district includes the University of Pennsylvania, a research powerhouse, is on the House Appropriations Committee. He supported an initiative approved this week that asks the National Science and Technology Council to coordinate federal investments in neuroscience. He said he expects President Obama to sign the measure, part of a broader funding bill.

The National Institutes of Health is the primary federal funder of neuroscience, but money also comes from the National Science Foundation, the Department of Veterans Affairs, the Department of Defense, and other agencies.

Fattah said the first step will be to figure out how much money the government now spends on neuroscience. His goal, he said, is to "quadruple" funding. Asked how that could occur given the country's fiscal problems, Fattah said other cuts could be made, but did not specify them.

James Harrop, medical director of the neuroscience service line at Thomas Jefferson University, said research funding in his field is complex and bureaucratic. Better coordination, he said, might "cut out some of the red tape."

Glen Gaulton, executive vice dean and chief scientific officer at the University of Pennsylvania Health System, said the new approach could be important if it "is done cohesively and comprehensively." He said neuroscience spans many different divisions of the NIH, which is also working on better coordination.

Translating Fattah's structural change into more funding will require "advocacy at multiple levels," Gaulton said.

Contact staff writer Stacey Burling at 215-854-4944 or sburling@phillynews.com.

Rep. Chaka Fattah on Scientists Working with Congress: 'You Have to Play in This Business Every Day'

24 May 2013 Earl Lane

Rep. Chaka Fattah (D-Pa.), ranking member of the House Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies, urged scientists to "be active at each and every point" of the policy process. "You have to play in this business every day," Fattah said in a 3 May breakfast talk at the 38th annual AAAS Forum on Science and Technology Policy.

He noted scientists' concern with a recent suggestion by Rep. Lamar Smith (R-Texas)—the new chairman of the House Committee on Science, Space, and Technology—that every National Science Foundation (NSF) grant include a statement of how the research "would directly benefit the American people."

Fattah told Forum attendees there likely will be bipartisan opposition to any effort to revise the existing guidelines for NSF's peer review process. "I don't think we should be fixing something that's not broken," he said, noting that NSF's peer review process is "the envy of the scientific world."

But while Fattah predicted that Smith's current proposal will not engender a great deal of support, he reminded scientists that Smith also was a principal sponsor of a patent reform bill that won bipartisan support in the House and Senate and was signed into law by President Barack Obama in 2011.

"So when Lamar Smith is doing good work on patent reform, then you need to be applauding that," Fattah said.

Lawmakers will be more inclined to listen to scientists' complaints, he said, if they have been paying attention to all of the work that members of Congress are doing on their behalf. And if scientists are concerned about passivity by the public regarding important issues such as climate change, Fattah said, "Then, as scientists, you cannot exhibit the same passivity when it comes to public policy."

Fattah also said it is important for scientists to take a proactive approach in explaining to Congress and the public how basic research that may seem arcane can, "in the blink of an eye," lead to practical applications such as advanced brain scanners or global positioning systems that are integrated into mobile phones used by millions.

"There are so many things that impact us every single day that have been the direct result of federally invested research," Fattah said.

Fattah, who is in his 10th congressional term, has traveled widely to major U.S. research facilities and

has become one of the strongest voices in Congress for basic science, most notably neuroscience. “Congressman Fattah is unquestionably one of the best friends of science ever,” said Alan I. Leshner, the CEO of AAAS. “He really gets it.” Leshner, who introduced Fattah at the Forum, noted that he was the initiator of what ultimately turned into the BRAIN Initiative (Brain Research through Advancing Innovative Neurotechnologies) that was announced by President Barack Obama at the White House on 2 April.Rep. Fattah speaking to a AAAS audience at breakfast. [Credit: AAAS/Robert Beets]

Rep. Fattah speaking to a AAAS audience at breakfast. [Credit: AAAS/Robert Beets]

“Neuroscience is a superior among equals among my priorities,” Fattah said. Research advances during the past decade may have brought neuroscience to a tipping point, he said, where researchers finally start getting the upper hand on Alzheimer’s and other devastating brain disorders. The new brain mapping initiative, aimed at better understanding how the 100 billion neurons in the brain connect and interact, is expected to provide both fundamental knowledge about the workings of the healthy brain and clues to the eventual treatment of many brain diseases and disorders.

Fattah said the United States must continue to invest in science and technology in all areas if it wants to remain competitive. He noted that the nation may soon lose the distinction of having the world’s largest supercomputer and already has seen the Large Hadron Collider near Geneva, Switzerland, become the world’s most powerful device for high-energy physics.

“If we don’t continue to make investments in these critical areas, we are going to fall behind,” Fattah said. “It may put us in a position where we’re trying to explain to our grandchildren how it is that, on our watch, we allowed our nation to be put in a deficit position” with regard to science and technology. He noted that Singapore, with a population of about 5 million—less than the population of the Philadelphia metropolitan area—now invests about $7 billion a year in science. The United States must not slacken its commitment to science, he said, as China, India and other countries ramp up their spending on research and development.

“No matter how expensive it may seem,” Fattah said, “I’m convinced that ignorance costs us more as a nation.”

White House and Hill Reps Single-minded on the Value of Neuroscience

Posted by Philip Rubin on September 04, 2013 at 12:14 PM EDT

This summer I joined with Congressman Chaka Fattah (D-PA) and more than 40 scientists, advocates, and business leaders at Philadelphia's University City Science Center to discuss recent advances in neuroscience research. The meeting gave OSTP and the Congressman an opportunity to brief some of the Nation's top brain researchers and thought leaders on Federal investments and initiatives in neuroscience and related areas, and the importance of public-private partnerships in advancing neuroscience exploration.

The Obama Administration is committed to harnessing science to understand the underpinnings of brain diseases, improve the diagnosis and treatment of traumatic injuries to the brain, and apply the latest discoveries about the neuroscience of teaching, learning, and development in educational settings across the country. In April, for example, the President announced the launch of the Brain Research Through Advancing Innovative Neurotechnologies (BRAIN) Initiative, which is focusing in part on developing better technologies and tools to accelerate progress in this important domain.

The Administration has had a longstanding interest in neuroscience. At the Philadelphia meeting, I provided an overview of a series of related initiatives and activities in areas such as neurodegenerative disease, mental health, behavioral science, and neuroethics. Such efforts would be difficult indeed without the strong support of leaders like Rep. Fattah, who worked closely with OSTP in 2011 to establish the Interagency Working Group on Neuroscience, which coordinates research among more than a dozen agencies under the National Science and Technology Council

Philip Rubin is Principal Assistant Director for Science at OSTP

September 4, 2013

HUFFPOST POLITICS

Rep. Chaka Fattah

Representative, Pennsylvania's 2nd Congressional District

Thinking Ahead: The Future of Neuroscience

Earlier this summer I convened more than 40 scientists, researchers, and advocates at Philadelphia's University City Science Center to discuss the latest innovations in neuroscience research with Dr. Philip Rubin, Principal Assistant Director for Science at the White House Office of Science and Technology Policy (OSTP).

The Science Center -- the oldest and largest urban research park in the United States -- provided an optimal background for participants to hear firsthand about the latest work coming out of both OSTP and the Fattah Neuroscience Initiative. During the briefing, Dr. Rubin addressed the rising focus on federal investment in neuroscience, and the critical emergence of public-private partnerships in advancing neuroscience exploration.

Dr. Rubin and I share an ardent belief that the potential within the subject is limitless--if stakeholders continue their push to grow and expand the field, the future of neuroscience will be transformative for millions of people, touching parents and children, businesses, scientists, educators, and innumerable other research disciplines.

While the majority of neuroscience funding comes from publicly funded agencies, the opportunities can truly be multiplied when the private and public sectors work together; innovation will be dependent on future collaborations between fellow lawmakers, funders, and those in the science community working at research institutions and business incubators like Philadelphia's Science Center.

My friend, Dr. Stephen Tang, President and CEO of the University City Science Center noted our region's role as a leader in healthcare and in life sciences research and development, "This combination creates an ideal environment in Philadelphia for world-class innovation in neuroscience research. We are proud that companies at the Science Center are developing products that will help diagnose conditions such as Alzheimer's disease and traumatic brain injury."

Following the briefing, Penn Medicine staff led Dr. Rubin on a short tour of current brain-related projects at the school, where he was briefed in research on everything from translational drug discovery efforts to treat neonatal seizures, to one lab's efforts to restore motor function for patients with disability from stroke, trauma, and neurodegenerative conditions. The breadth and scope of these and the countless other cutting-edge projects underway at our country's finest research institutions confirm that neuroscience is an increasingly important national priority--and one that I will continue to elevate through my work in Congress and beyond.

Child development, veteran's mental health, sports injuries -- all are growing subjects of

neuroscience research that with the right investment and support will be the beneficiary of pioneering technologies and medical advancements. This is why I founded the Fattah Neuroscience Initiative (FNI), an innovative, non-incremental policy effort seeking to achieve groundbreaking progress in understanding the human brain.

In 2011, FNI formed the Interagency Working Group on Neuroscience (IWGN), housed at the White House, bringing together representatives across the Federal government to make recommendations about the future of neuroscience research.

President Obama has been a vocal champion and advocate of IWGN and our country's commitment to neuroscience progress. In April, the President announced an ambitious plan that will build on, and advance, scientific work in the nanoscience and neuroscience communities. This project -- the Brain Research Through Advancing Innovative Neurotechnologies Initiative, or B.R.A.I.N. Initiative -- will provide funding to better understand the dynamic functions of the brain, and develop new tools, training and opportunities for this research.

Funding neuroscience research now will reap tangible benefits for the lives of citizens across America, as well as the potential to increase our country's global competitiveness.

In the coming weeks, I will highlight the incredible opportunities for international partnership around neuroscience investment, hosting a briefing in Philadelphia with Horizon 2020 to explore a partnership with the European Commission, and then traveling to Israel to address the country's first-ever international brain technology conference, BrainTech Israel 2013.

The World Health Organization estimates that neurological disorders affect up to one billion people around the world. Here at home, it's estimated that neurological illness affects more than 50 million Americans annually. These numbers remind us that advancing America's understanding of neuroscience and the human brain is truly a grand challenge of the 21st Century.

Rep. Chaka Fattah talks research, Penn's role

The DP sat down for a Q&A with Fattah after his speech to discuss the sequester, his initiatives

BY **WILL MARBLE**
Staff Writer

Rep. Chaka Fattah (D) represents Pennsylvania's second district — which includes University City — in the United States Congress. As a supporter of scientific research, he gave the keynote address at the Neuroscience Graduate Group's annual retreat on Friday, where he talked about the nation's investment in neuroscience. The Daily Pennsylvanian sat down with the congressman after his speech. Below is an edited transcript of the interview.

The Daily Pennsylvanian: You talked about an announcement to get the EU to invest in the Philadelphia region. Can you elaborate on what that announcement will contain and how the process of negotiation went?

Chaka Fattah: I had a series of meetings with the science advisory for the EU for the last two years and it's going to culminate in an event right here in University City on Sept. 20, which is going to lay out something called Horizon 2020, which is the EU's ... science investment initiative. It's along six areas, the Leading one being neuroscience.

What we're going to be rolling out to an audience of innovators and the university community and laboratory leaders in our region — is laying out the opportunity for real partnerships with the EU on these projects. That's all I can say about it at the moment, but my office will be making an announcement about it ... after Labor Day.

DP: In your speech, you mentioned an initiative you're heading up to get more private investment in neuroscience research. But there are challenges in that much of the research is not directly translatable to the market. What steps can you take to increase private investments in research?

CF: What we would do is expand the period of exclusivity of the life of a patent on [intellectual property] in return for more investment. I know with a certainty that if we expanded that period for a year or three years or five years, it would make it more palatable for these companies to make the investments necessary as we go after epilepsy, or bipolar disease or any of these issues.

DP: There are a lot of researchers here who are very concerned by the lack of grants being awarded by the NIH and other agencies — some are even having to shut down research projects. Are lawmakers coming around on research funding?

CF: The cuts to the NIH and the National Science Foundation are not going to stand. Yes, they are in place now, but they're not going to stand.

What you have is a growing storm in Washington. You have the need to pass the appropriation bills by Sept. 30. ... The country will run out of money on Oct. 5 — our borrowing capacity will come to a conclusion and the debt ceiling has to be raised. You have the president's insistence that ... these [sequester] cuts be retreated from, along with the cuts to the Department of Defense ... at a time when the country is saying maybe we're getting ready to enter into another military engagement.

This is what we call an action-forcing event. ... Even though there's 700 already-approved NIH grants that aren't being funded, it is a temporary moment.

The need for advocacy is true, but I don't believe we should be sending false messages to grad students that somehow the well is going to run dry on research dollars.

DP: How did you develop an interest in neuroscience?

CF: It's my job. I am the lead appropriator in the Congress for my party on science. Say I was disinterested — I still have to do my job.

But the reasons I've made neuroscience singularly my most important priority is different from the fact that it's my job. If you look at the entirety of my career, I've been in elected office for 30 years and there's one constant — state House, state Senate, Congress — [and it's] education. So my interest in education — and therefore my interest in brain development and cognition — is the reason why this is more important than any of the other things that are equally important.

DP: There's been a lot of controversy around the school system in Philadelphia. Penn supports the Penn Alexander School, which itself has been no stranger to controversy. What are your thoughts on Penn's impact on and relationship with West Philadelphia, University City and the city as a whole?

CF: Over the decades there's been kind of an ebb and flow to the controversies. My belief, and it's unequivocal, is that Penn is an extraordinary benefit to the city, that it is an anchor to the development of the city's economic infrastructure.

'Eds and meds' is the term. Education and medicine are the future growth pillars for the city's economy. Penn being the largest employer and ... [its] medical and research facilities are very significant.

[But] there are more opportunities for Penn to participate with the community and I'm in an ongoing dialogue with Penn about what those things can be.

My number one principal interest is not in the meat and potatoes of the challenges that we face, but in the aspirations of the kids in Philadelphia. I'm very interested in trying to create a circumstance in which every kid in the city who graduates from high school can go to college. ... We need to raise the aspirations of the young people in Philadelphia about what their future could be. And I think ... Penn and our other universities can do more in that regard. ... I think those aspirations exist, but we need to make them realistic early enough in the life cycle to make a difference.

DP: Penn is expanding its neuroscience investment, including expanding partnerships between schools. Have you been collaborating with or in communication with Penn on neuroscience initiatives?

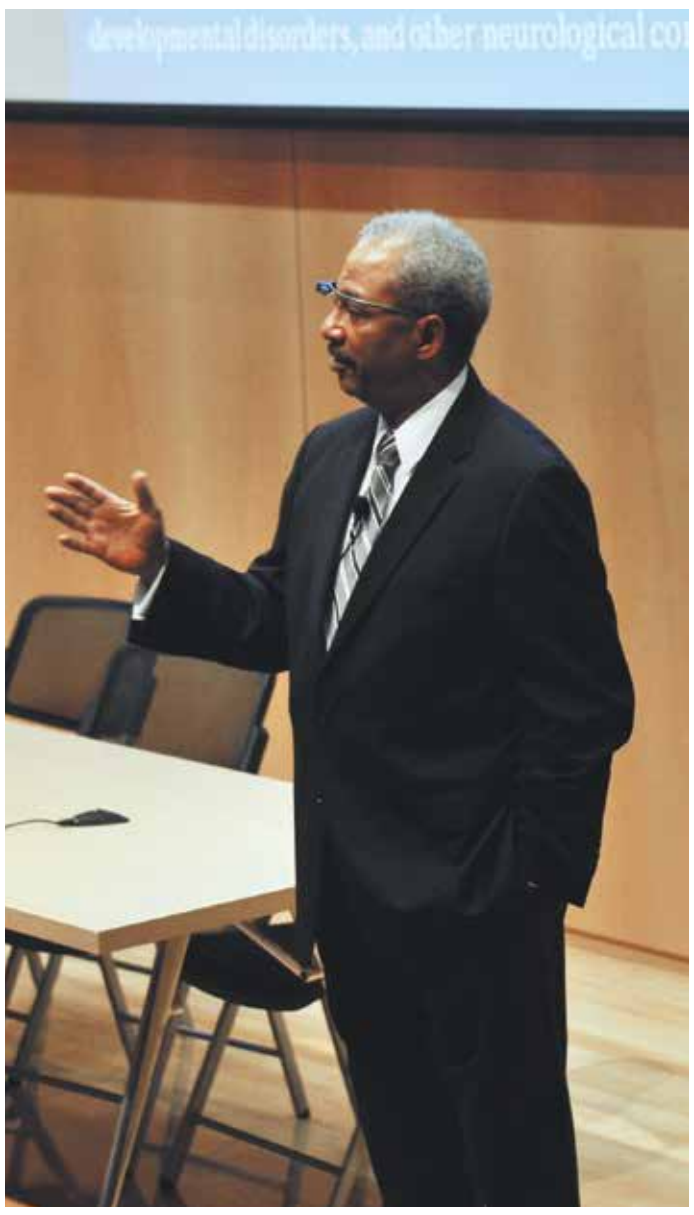
CF: Very much so. This is the most important frontier for our country. That's why Amy Gutmann was there when we announced the brain mapping initiative at the White House. Doug Smith, over at the brain repair center here at Penn, ran me through the traps early on. Marc Dichter, who's the head of the [Mahoney Institute of Neurological Sciences] here, has consulted with me on a number of these issues.

I think that Philadelphia is going to be poised to help lead the world — that's why I'm going to be making this announcement I referred to on Sept. 20 right here. At my church they say all things work for good, so all of these things are working in kind of a synergy that I think is great.

Rep. Fattah to announce EU partnership for science research

Fattah says the EU's Horizon 2020 program will invest portion of its funding in Phila.

BY **WILL MARBLE**
Staff Writer



Luke Chen/Photo Manager

U.S. House Representative **Chaka Fattah** announces a future Phila.-EU partnership for scientific research to Penn's Neuroscience Graduate Group last Friday.

Chaka Fattah, the 10-term Democratic congressman that represents West Philadelphia, will announce a partnership between Philadelphia research centers and a major initiative in the European Union to invest in scientific innovation next week.

"What we're going to be rolling out to an audience of innovators and the university community and laboratory leaders in our region — is laying out the opportunity for real partnerships with the EU on these projects," Fattah said in an interview with The Daily Pennsylvanian.

"I've had a series of meetings with the science advisor for the EU over the past two years, and it's going to culminate with an event right here in University City on Sept. 20," he said.

Horizon 2020 — the EU's comprehensive science investment initiative — includes an €80 billion ($105 billion USD) investment in research and innovation. While there are six broad areas of inquiry, Fattah said more money will be dedicated toward neuroscience than any other field. He indicated that a portion of those funds will be invested in Philadelphia, which he said could be at the forefront of innovation in the field.

"This is the most important frontier for our country," he said. "University of Penn is stepping forward in terms of its work. I think Philadelphia is going to be poised to help lead the world."

"That's why I'm going to be making this announcement," he added.

The announcement comes as the University is increasing its neuroscience research enterprise. In response to a White House push to map the human brain, Penn plans to build a new neuroscience building and to facilitate partnerships between researchers in different fields — medicine, engineering, law and bioethics — to better understand the brain and the legal implications of research in the field. The congressman said he has been in close communication with the University regarding its research initiatives.

Fattah is the top Democrat on the House Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies, which oversees appropriations to the National Science Foundation and other research agencies. As one of Congress's Leading advocates for scientific research, he told graduate students of the partnership during the keynote speech for the Neuroscience Graduate Group retreat Friday afternoon.

The congressman has made neuroscience research his top priority in terms of federal appropriations for research. While federal support for research has dwindled in recent years, particularly since the sequester in March, he said that the phenomenon "will not stand," given the political pressure exerted by the White House and congressional Democrats to up the investment in science and technology.

Fattah's office will make a formal announcement of the program next week, and he declined to give more specific details until then.

Marcus still reaching out for donations

DONATIONS from page 1

"[Masterman] is a wonderful school, but it has a lot of needs," Gym, who also has two graduate degrees from Penn, said. "We've never seen anything in the school district where we've seen this much disregard for young people."

Gym, like Marcus, was critical of the state of Pennsylvania for its inaction on school funding. "It feels like the state is doing the absolute least that they can get away with," she said. "I think the state is taking glee in not funding the school district."

College junior Kyra Reumann-Moore, a Masterman graduate whose sister attends the school, also elaborated on the problems that the school is facing this year.

"This summer the school district has been threatening that it would only be able to support one principal and teachers in each school," she said in an e-mail. "I'm pretty sure that the majority of the teachers and staff that were originally laid off [from Masterman] have not been rehired."

Reumann-Moore added that even the slightest donation could help the system.

"I think Ms. Marcus had a great idea with this Twitter campaign," she said. "I only hope that more powerful people and groups see the value in improving the school district's situation."

As of press time, the Twitter campaign was still contacting Made in America artists and organizers for donations.

Morrison survived by his wife, one son

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he walked in the room, you knew he was there because you could hear him laughing. He'll be missed by so many people. Always a smile," said Karen Hewins, Morrison's sister.

Morrison was the head of the Pennsylvania chapter of the Blue Knights, which participates in many charity events like collecting toys for children during the holidays. Before Penn, Officer Morrison spent 13 years working for the Philadelphia Housing Authority. Over the past 10 years, he has been deployed on several combat missions as a member of the Armed Forces.

"Officer Jimmy Morrison was a model father, husband, patriot [and] University of Pennsylvania police officer," Rush said. "He will be deeply missed by his family and friends."

Morrison is survived by his wife, Wendy, and his 14-year-old son, James.

Anyone wishing to contribute additional comments should email City News Editor Sarah Smith at smith@thedp.com.

THE TIMES OF ISRAEL

START-UP ISRAEL

ALL THE NEWS AND VIEWS FROM SILICON WADI

Million-dollar brain prize goes to US 'thought control' technology

By David Shamah | October 15, 2013

Research by the BrainGate team means sufferers of 'locked-in syndrome,' such as ALS patients, will be able to live more normally

Dr. John Donoghue (L.) accepts the $1 million B.R.A.I.N Award from President Shimon Peres at the recent BrainTech 2013 event in Tel Aviv (Photo credit: Chen Galili)

After considering dozens of projects from around the world, Israel Brain Technologies, an organization dedicated to establishing Israel as a center of global brain technology and related research, awarded its $1 million dollar B.R.A.I.N. (Breakthrough Research And Innovation in Neurotechnology) prize to a team of US researchers. The BrainGate team, led by John Donoghue of Brown University, has developed a system that reads brain signals and transmits them to limbs, enabling patients with degenerative physical diseases like ALS (Lou Gehrig's disease) to move their arms and hands, and manipulate objects.

The award was presented Tuesday at the first-ever International Brain Technology Conference, Braintech 2013. The award ceremony was the highlight of the two-day event in Tel Aviv, where presentations and discussions on all things brain — from neuroscience to DNA to behavioral sciences to drugs — were on the agenda. Highlighted were areas like neurotechnology, which many scientists believe will be an area of strong growth in the coming years, as researchers close

in on how to manipulate the brain to treat diseases like depression and Alzheimer's, and change our daily lives through brain-machine Interfaces and brain-like computing.

BrainGate's technology implants electrodes into the brain to read impulses that are then sent to a computer, which decodes them and allows them to operate a prosthetic or external device. The team has used the technology on numerous patients, including those suffering from "locked-in syndrome" — an inability to move or speak, despite being fully awake and alert and having full mental capacities.

Decades of research (the early technology was originally developed by a now defunct company called CyberKinetics), said Donoghue, showed that groups of neurons work together to allow movement, and the use of sensors to read these neuron signals allowed even patients who were paralyzed and had lost control of their limbs altogether to perform such relatively complicated tasks as using a prosthetic to reach out, grab a cup of coffee and drink it — just by thinking of those actions.

Congressman Chaka Fattah (Photo credit: Courtesy)

That an American team won the first prize to be distributed by Israel's "brain trust" made US Congressman Chaka Fattah (D-Pa) very happy. Fattah, a Congressional champion of research and funding for brain-related diseases, believes that without a major effort to develop brain therapies, the economy of the US and other Western countries will be in jeopardy.

"More people than ever have Alzheimer's, and the population is getting older," he told The Times of Israel on the sidelines of Braintech.

"I met with Japanese officials recently, who said that in a few years, a third of their workforce is going to have to quit work to stay home and care for elderly relatives with brain diseases," said Fattah. "Under such conditions, their economy will collapse, and eventually all Western countries with aging populations will face similar dilemmas. We need solutions," he said, and teams like Donoghue's are helping to supply them.

It's for that reason, Fattah said, that the US will spend $5 billion on brain research in the next few years. "But we already spend annually $500 billion on care for mobility challenged people, $205 billion on Alzheimer's-related care, and so on."

Spending $5 billion on brain research is, he quipped, "a no-brainer for a society that wants healthier citizens, and a healthier economy."

Fattah also gave the keynote at the IBT conference.

"The White House has made it abundantly clear that this conference is a priority," he said. "The President [of the United States] said that brain research will be a superior among equals. We are

going to map the brain. The EU has made a decision to do this as well. We need to work together to make the progress we want to make. We are going to host a meeting in Washington, DC, in which we are going to take the work of Israel Brain Technologies, the EU and the US and have a meeting of the minds."

President Shimon Peres, who was the inspiration behind the formation of IBT and the B.R.A.I.N. prize, personally presented Donoghue and his BrainGate colleague Dr. Arto Nurmikko with the award.

Speaking during the ceremony, Peres told the audience that brain technology will revolutionize our lives.

"The brain is illustrious… The greatest hope is that we should begin to understand how our own brain functions…The first question we ask ourselves is… how to make Israel a center of brain research. Where is Israel strong? There are five domains in brain research. We found out that Israel is strong in two of them: one, the interface of brain to computer and the other, the therapy of the brain."

Accepting the award, Donoghue thanked Peres and the judges – which included Nobel laureates Eric Kandel and Bert Sakmann – and described the technology to the audience.

"The biggest thing that we at BrainGate have accomplished is that we can now 'read out' the brain," said Donoghue. "That means that among other things we can reconnect the brain to the outside world for severely paralyzed people who have no way of getting thoughts out to the world."

"This is an international prize that establishes Israel at the center of the neurotech community, while giving recognition to researchers from all over the world," said Rafi Gidron, founder and Chairman of IBT. "The prize reflects the goal of IBT, which is to bring international brain technology to Israel and at the same time, bring Israeli brain technology to the world."

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HUFFPOST POLITICS

Rep. Chaka Fattah

Representative, Pennsylvania's 2nd Congressional District

Mapping a Bolder Plan for the Brain

The European Union, in funding and supporting the Human Brain Project (HBP), has laid out a bold plan with enormous potential to help us understand the body's most complex organ. I support this effort and commend their visionary approach to solving what we all acknowledge is one of our world's greatest challenges.

Here in the United States I have been engaged in our country's counterpart to HBP, leading the charge to create the Interagency Working Group on Neuroscience (IWGN), which directly led to the establishment of the U.S. BRAIN Initiative last year.

Though the two projects differ in their approach and end goals, they are both valuable and necessary efforts -- programs that I hope someday are united as we work towards greater international collaborations around neuroscience research.

The scientists that offered critiques of the Human Brain Project in an open letter last month should be reminded of what Albert Einstein once said, "We can't solve problems by using the same kind of thinking we used when we created them."

This type of thinking has led us to the current state of the field: one that still lacks much more than a rudimentary comprehension of the human brain.

When it comes to neuroscience, bold must be the norm -- not the exception. The Human Brain Project is large and ambitious, and as a result has the potential to be a disruptive force in a field that for far too long has been narrowly focused on an incremental approach.

Simulating the brain, as the HBP project intends to do, and mapping the brain as the U.S. initiative proposes, are both fundamental to advancing the field--as are the thousands of other methods and tactics underway in neuroscience research labs across the world.

This is not an either-or proposition. The Human Brain Project can move forward and be successful, while other research models move ahead. We need to support and fund every rational strategy that could make headway in our understanding of the brain. There is too much at stake for the international neuroscience community *not* to embrace each approach.

The World Health Organization estimates that neurological disorders affect one billion people around the globe. This pronouncement has spurred the G8, under David Cameron's leadership, to make neurological diseases a primary area of focus. And in short, it offers a billion reasons to move forward on all fronts.

The EU and U.S. are not alone in embarking on large-scale human brain projects. In the last two years, important neuroscience efforts have been launched in Australia, Japan, Israel, China, and several other nations. The explosion of international projects can be at least partly contributed to a universal realization that we are at a crossroads in the field, with new advancements in technology and big data fueling a growing enthusiasm in the area, while expanding our research capacities.

In recent weeks I had the opportunity to meet and speak with EU Commission President, José Manuel Barroso. We discussed our mutual interest in neuroscience and looked ahead to the fall when we will have an opportunity to solidify joint efforts between the EU, United States, and Israel, and achieve greater progress on our shared objectives.

This is not a time to deride others working towards the same goal, but rather a moment to embrace new paradigms, while encouraging cooperation and collaboration. It is only with this mindset that we will be successful.

Congressman Chaka Fattah is architect of the Fattah Neuroscience Initiative, an innovative, non-incremental policy initiative designed to make major progress in understanding the human brain by intensifying, in a collaborative fashion, federal research efforts across brain disease, disorder, injury, cognition and development.